An Investigation into the Factor Structure of Academically Optimistic Culture, Enabling School Structure and School Mindfulness Scale
(Case: Tehran Primary Schools)

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Abstract: The current research study aimed to shed light on the multiple relationships between enabling structure, school mindfulness and the academic optimism of Elementary school teachers in Iran. To achieve this, 185 Iranian teachers were picked out on the basis of a multi-stage random sampling procedure. They were required to respond to three questionnaires: Academic Optimism of Schools, Enabling School Structure, and School Mindfulness Scale. Furthermore, to analyze the gathered data, AMOS software in general and correlation research method in particular was utilized. The study finally revealed that enabling school structure and school mindfulness bear positive impacts on academic optimism. Additionally, the study signified a positive covariance between enabling structure and schools mindfulness; and also a positive relation between enabling structure and school mindfulness.

Key words: enabling structure, school mindfulness, academic optimism.
Introduction

One salient feature of the contemporary world is its dynamicity and fast changes in perspectives. Nowadays, the world is referred to as the world of organizations with men in charge. It indicates that men are irreplaceable assets in organizations. Moreover, organizational culture can be defined as a system with shared orientations which holds the organization together as a unit that gives a distinctive identity and entity to it. Organizational culture encompasses many of initial beliefs of informal organizations, norms, values, ideologies and newly established systems. The term organizational culture takes its popularity and proliferation from some famous publications in the 1980s about successful enterprises (Peters & Waterman, 1982; Ouchi, 1981; Deal & Kennedy, 1982). All of these publications take as their basis this point that effective organizations are characterized by a sturdy, distinctive collaborative culture and the function of establishing and shaping a culture is mainly on the shoulders of executive leaders.

Although different taxonomies of culture have been proposed by different theorists (Hersey & Blanchard, 2005; Daft, 2001), Hoy and Miskel (2005) contend that although organizational culture is often taken into consideration as common construct for training analysis, most of the recent conversations regarding school culture are analytical, philosophical, and novel. Examining 4 types of school culture (culture of efficacy, of trust, of optimism, and of custodial), they offer their analysis of culture suggesting that these cultures apiece characterize some shared beliefs held by the teachers in the school. Optimism is, as they believe, a result of reciprocal relationship among efficacy, teaching staff’s trust, and academic emphasis from the school. Not only are these three collective attributes similar in terms of function and nature, but have also good influences on students’ academic achievement (Hoy & Miskel, 2013). To put it simply, these three attributes are in sync and create a positive setting in the school (Smith & Hoy, 2006; Hoy, Tarter, Woolfolk Hoy, 2006). A school with high academically
optimistic culture is the one in which its teaching staff believes that they are capable of making changes, its students are capable of learning, and these factors, in turn, lead to improved academic achievement. (Hoy, Tarter, Woolfolk Hoy; 2006). Academic optimism is, then, a powerful force towards improvement establishing a culture with beliefs and norms that view teachers as competent people, students as inquisitive individuals, te parents as supportive, and academic achievement as attainable (Hoy & Miskel, 2013). There are different variables in the school which may contribute to optimistic culture (for example, enabling structure and school mindfulness). Through emphasizing mutual relationship, regarding problems as opportunities, encouraging differences, strengthening interpersonal trust, learning from mistakes, sensitivity to the main operation (teaching and learning), and commitment to resilience, enabling structure and school mindfulness can establish academic optimism followed by positive outcomes like students’ academic achievement, motivated teachers and students, and a more interesting learning atmosphere and a healthier school (Mehmet Gürol a, Seda Kerimgil, 2010).

An overview of the existing literature on educational institutions and especially schools reveals studies (Hoy, Gage & Tarter, 2006 Beard ,Hoy and Hoy, 2010; Mcguigan,2005; Donald watts, 2009) that report a strong significant relationship between academically optimistic culture and enabling structure as well as between enabling structure and school mindfulness. No studies, however, has ever examined the direct and indirect effects of enabling structure and school mindfulness on academically optimistic culture. Therefore, the basic research problem of this paper is whether the direct and indirect effects could be examined among these three variables in the form of structural models in schools? On the one hand, all previously conducted studies on the same issue have been in countries other than Iran. On the other hand, the context of Iranian schools differs from that of other countries in many respects. So, this question arises whether the quality and quantity of relationships among these variables in
Iranian schools are of similar results and in consistent with other foreign studies? Raising awareness of the above question, the present paper aims to examine the relationships among academic optimism, enabling structure, and organization mindfulness.

**Theoretical Framework**

**Academic optimism**

Academic optimism is an organization-level variable affecting students' academic achievement (Hoy, Tarter, Woolfolk Hoy; 2006; McGuigan & Hoy, 2006; Smith & Hoy, 2006) and is often considered a measure for examining the culture of the school. It consists of group efficacy, teaching staff’s trust, and academic emphasis on the part of schools. Not only are these three collective attributes similar in terms of nature and function, but they also have a positive, effective impact on the student’s academic achievement and create a positive atmosphere in the school (Hoy, Tarter, Woolfolk Hoy; 2006; Smith & Hoy, 2006). The theoretical foundations of academic optimism stems from theories such as Bandura’s (1986, 1997) social-cognitive and self-efficacy theories, James Coleman’s (1990) social capital theory, Hoy and his colleagues’ work on culture and climate as well as the conception of positive psychology and learned optimism proposed by Seligman(2002). According to positive psychology, optimism is assumed to be the opposite of inability. Optimism is, in essence, a way to evolve personal control, hope, responsibility acceptance, and a positive stance in life. Seligman (2002) believes that at the mental level positive psychology is to do with positive mental experiences like well-being and content, exhilaration, happiness, knowledge acquisition of the future, hopes and aspirations, and at the individual level concerns positive behaviors like love, personal interests and skills, perseverance, high talents and wisdom. According to positive psychologists, there exist situations where humans can flourish and thrive. In such situations the students are into the class more than
expected. An optimistic class stresses opportunities, resources, trust, improvability, and altruism (Hoy, 2006). In such a class context, the optimistic teacher highlights students’ strengths and good properties of the classroom, the school and the committees. Academic optimism is a collective construct involving behavioral, affective, and cognitive constituents. In addition, group efficacy is a collective and cognitive belief. Teaching staff’s trust in parents and teachers is the school’s affective response and academic emphasis is a rule of conduct derived from efficacy and trust. Collective efficacy can make the teaching staff believe that they can bring about a positive difference in the students’ learning outcomes. The teaching staff putting trust in the students and parents reflects this belief that the parents, teachers, and students can cooperate in improving learning which mean the teaching staff has confidence in the students and finally Academic emphasis is an approved rule of conduct causing this belief that the teaching staff has all the attention turned to the students’ achievement within an academic setting. These three aspects of group optimism are highly related. Teaching staff’s trust in parents and students, for example, encourages a sense of group efficacy and group efficacy, in turn, strengthens trust. Similarly, when teaching staff trust parents, teachers can set high academic standards with the confidence that they will not be undermined by parents, and they get teaching staff to have higher trust in teachers and students afterwards. Finally, when teaching staff as a coherent unit believe that they can organize and carry out the required actions that positively influence student academic achievement, they will emphasize academic achievement and consequently, academic emphasis would be more likely to lead to a strong sense of group efficacy.

To sum up, it might be concluded that academic optimism is a teacher’s positive belief by which a difference in the academic performance of students could be resulted by emphasizing academics and learning, and also by trusting parents and students to cooperate in the process, and by believing in his or her own capacity to overcome
difficulties and react to failure with resilience and perseverance. (Hoy, Hoy & Kurz, 2008). Academically optimistic culture surmounts the obstacle of emptiness and pessimism learned by the principals and teaching staff generating a culture with group norms and beliefs that views teachers as competent individuals, students as inquisitive individuals, parents as supportive people, and teaching staff as those who believe that achievement can be attained (Hoy & Miskel, 2013).

**Enabling structure**

Schools are bureaucratic organizations having specific structure, rules and procedures to formulate and shape organizational life for students and teachers. Schools stick to precisely specified rules, principles and standard procedures to guide students’ and teachers’ behaviors (e.g. procedures as to lunch time or students’ truancy or teachers’ absenteeism). Schools, therefore, are bureaucratic in nature. Now this question might raise that whether bureaucracy has only negative outcomes? In fact, organizational research indicates two conflicting views about the outcomes of bureaucracy in organizations. The first view argues that bureaucracy brings about dissatisfaction, stifles innovation, and makes people unmotivated and alienated. In contrast, the second view holds that bureaucracy in the organization furnishes appropriate guidance, defines responsibilities, lowers job stress, and keeps people motivated and more effective (Adler & Borys, 1996). Following the two views, Adler & Borys (1996) identified two types of compulsory and enabling formalizations. Focusing on Adler & Borys’s work, Hoy & Sweetland (2000, 2001) then applied it to the school’s structure. They describe the school’s structure on a spectrum from enabling on one side and hindering on the other side. The enabling structure of schools is the one with optional hierarchy which is more enabling than hindering and is a set of rules and regulations which is more of guidance into solving problems than a punisher at time of failure. In such a structure, there is cooperation among schools, principals, and teachers.
within the identified hierarchical responsibilities and they maintain their distinctive roles. Hence, rules and regulation guide more about how to deal with problems than cause trouble. In such contexts, both authority hierarchy and rules serve more as mechanisms to help teachers rather than as tools to increase the power of principals.

Conversely, the hindering structure of schools represents a set of compulsory rules and regulations with an impeding authority hierarchy. The purpose of authority hierarchy is to have disciplined and obedient teachers. Consequently, teachers will be closely managed and controlled. The utilization of rules and hierarchy is to gain control and conformity. Such a structure is put in place to enable principals to identify indifferent, irresponsible and incompetent teachers. In this way, principals gain more power but in contrast, teachers’ authority will diminish.

These two structures possess strong opposing properties in schools. Enabling structure called mutual communications reveals difficulties for example in learning situations, paying attention to differences, and encouraging overt actions, coordination, collaborative problem solving and innovativeness. Hindering structure is typically characterized by bilateral top-down communication, mandatory conformity, dishonesty, control, and punishment which take problems as disagreements. The process of developing enabling strategy is the same as empowering participants and problem solving, that is, teachers and principals will cooperate to figure out how to resolve problems. So improvement is at work. Hindering structure, however, is strategically different. It tends to exert control and support principals’ decisions. In such a structure, principals tend to control and discipline the disobedients; principals aren’t usually honest and frank with teachers, and as a result, skepticism, control, and punishment are prominent. The management in enabling schools has figured out ways that contribute to teachers’ achievement and ensure that teachers act in accordance with rules.
School mindfulness

The notion of individual mindfulness was first proposed by Langer (1989) (Hoy, Gage & Tarter; 2006). Mindfulness, as a type of meditation, is rooted in the oriental teachings and religions especially Buddhism. Mindfulness, as defined by Kabat-Zinn (2003) means paying attention in a particular way, purposefully, in the present time, and non-judgmentally. Mindfulness, in fact, is a psychological state in which individuals are engaged in active information processing while performing their current tasks so that they are actively analyzing, categorizing, and making distinctions in data (Krieger, 2005). Three basic features are prominent in different definitions of mindfulness: 1) concentration on present time, 2) purposefulness or intention that adds motivation to individual’s concentration and behavior, and 3) attitude which represent how the individual concentrate or the situation (such as interest, curiosity, lack of judgment, openness, and responsiveness) in which the individual is while concentrating (Duncan, 2009). Therefore, mindfulness makes it possible for individuals to refer to inside feelings and outside happenings by alertness and behavioral orientation that is based on sensible responsibility instead of automatic reactions. Weik (2001) first borrowed individual mindfulness from the psychological literature and brought it to the organizational literature proposing organizational mindfulness. He maintains that organizational mindfulness is complicated in nature and proposes five processes that reinforce organizational mindfulness: preoccupation with failure, reluctance to simplify, sensitivity to main operations of the organization, commitment to resilience, and deference to expertise.

Based on individual and organizational mindfulness, Hoy, then, coined the notion of school mindfulness. He asserts that schools, like persons, can be mindful. He also points out that raising school mindfulness rests with principals (Hoy, 2003). Indeed, at mindful school, leaders and individual see themselves as they are and attempt to bring different interpretations together keeping their variety and complexity.
They believe that 5 processes are involved in bolstering school mindfulness as it is in organizational mindfulness:

1. Preoccupation with failure: mindful schools regularly review problems and tackle minor problems before major ones. Mindful schools and organizations aren’t complacent about their success and achievement, for complacency sometimes leads to vanity which in turn is preventive and harmful.

2. Reluctance to simplification: mindful schools and their leaders are apathetic to simplify and they are inclined to less simplify and more experience. The principals of mindful schools put as much effort as they can to bring different interpretations together without simplification.

3. Sensitivity to main operations of the organization: the motto of mindful schools is to pay regular attention to the unexpected for they are unavoidable. In addition to considering such events, people in mindful schools attempt to show sensitivity to the central operation of class, that is, teaching and learning.

4. Commitment to resilience: mindful schools are committed to resilience. Organizations or systems are no perfect, so mindful school leaders should detect errors and stop them recurring. Anticipations can’t deter errors from happening. Schools and their leaders must learn to be robust and flexible trying to detect and eliminate problems as well as to be resilient.

5. Deference to expertise: mindful schools don’t accept rigid hard official structures. Instead, they often adapt expertise to problems cultivating a fluid decision making system which shows deference to experts (not positions or experience). An enabling structure ruled by expertise usually replaces the old rigid hindering one (Hoy & Miskel, 2013).

Accordingly, mindful schools can be taken into consideration as schools where teachers and principals develop capacity to anticipate by preoccupying with failure,
being reluctant to simplify, and being sensitive to main operations and embrace the unexpected with resilience, expertise and attempt. Results of studies show that mindful schools have features such as specialized teachers, trustworthy and competent principals who are benevolent, warm, and communicative. In fact, these studies suggest that work settings with such qualities as competence, trustworthiness, benevolence, altruism, and openness encourage and nurture mindfulness (Hoy, Gage & Tarter, 2006).

In summary, it might be contended that organizational mindfulness and enabling school structure bring about improved academically optimistic culture by encouraging people to communicate, regarding problems as learning opportunities, nurturing trust, paying attention to differences, and contributing to solving problems, etc. The present paper, therefore, tries to provide a structural model for the three variables of academic optimism, enabling school structure, and school mindfulness

Methodology

The method used in the present study was descriptive-correlational. The target population consisted of all primary school teachers in Tehran in academic year of 2013-2014.

Sample: size and method

As it was above-mentioned, the target population comprises all primary school teachers in Tehran from which 250 teachers from 5 districts (18, 8, 14, 11, and 2) were selected via multi-stage random sampling procedure.

Measures

Altogether three questionnaires were employed to collect the desired data: academically optimistic culture questionnaire, enabling school structure questionnaire, and school mindfulness questionnaire.
1. **Academically optimistic culture questionnaire:** This questionnaire that was designed by Hoy et al. (2006) is in line with a set of underpinning theories such as Bandura’s social-cognitive and self-efficacy theories, James Coleman’s social capital theory, Hoy and his colleagues’ work on culture and climate, and the notion of learned optimism by Martin Seligman. It is, in fact, a three choice Likert format and consists of 30 items on 3 dimensions of collective efficacy, trust, and academic emphasis.

2. **Enabling school structure questionnaire:** It was developed by Hoy & et al. (2000) and entails 12 items in the Likert scale format which depict school structure on a spectrum from enabling to hindering. The higher the score, the more enabling school structure is, and the lower the score, the more hindering school structure is. Moreover, the reliability of the questionnaire has been reported to be 0.90; and its validity has been confirmed by numerous research studies (Hoy & Sweetland; 2000, 2001).

3. **School mindfulness questionnaire:** It was developed by Hoy et al. (2004) and involves 14 items in Likert scale format that measure the degree of school mindfulness. The higher the score, the more mindful the school is. This questionnaire measures 5 dimensions. The reliability was reported 0.90 or above and the validity was affirmed using factor analysis (Hoy & et al., 2004).
Figure 1. Structure model of academic structure, enabling structure, and school mindfulness

Data analysis

To analyze the collected data, AMOS was run for structural equation modeling to answer the research question of "what does equation modeling of three variables, that is, academic optimism, enabling structure, and school mindfulness look like?"

Based on related theoretical literature review, the authors first developed a conceptual framework and then put the structure model of "academic optimism", "school enabling structure", and "school mindfulness" to the test that finally came up with the following fit model.

Further, as to the data analysis with regard to the structural relationships between the three variables, the results demonstrated that school enabling structure has a positive, direct, significant effect on academically optimistic culture. Standard regression coefficient for this relationship turned out to be 0.35. Moreover, given the observed critical ratio (5.053) and P-significant value of the path- (0.000), it might be
inferred that school enabling structure significantly influences academically optimistic culture (see figure 2).

![Fit structure model of academic structure, enabling structure, and school mindfulness](image)

**Figure 2. Fit structure model of academic structure, enabling structure, and school mindfulness**

Results also indicate a positive, direct, significant effect of school mindfulness on academic optimism. Regression coefficient yielded from the analysis was 0.53. Additionally, given the observed critical ratio (7.308) and $P$-significant value of the path- (0.000), it can be inferred that academic optimism significantly affects school mindfulness (see figure 1).
Table 1. Structural relationships of enabling structure and school mindfulness with academic optimism

<table>
<thead>
<tr>
<th></th>
<th>Regression Weights</th>
<th>Standardized Regression Weights</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
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<tbody>
<tr>
<td>enabling school structure →</td>
<td>.542</td>
<td>.352</td>
<td>.107</td>
<td>5.053</td>
<td>***</td>
</tr>
<tr>
<td>academically optimistic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>school mindfulness →</td>
<td>.577</td>
<td>.529</td>
<td>.079</td>
<td>7.308</td>
<td>***</td>
</tr>
<tr>
<td>academically optimistic</td>
<td></td>
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Another finding of the study was that there exists a positive and significant covariance between enabling structure and school mindfulness. The covariance obtained from the analysis was 0.50. Given the observed critical ratio (7.348) and P-significant value of the path- (0.000), it us suggested that there is a significant relationship between enabling structure and school mindfulness (see table 2).

Table 2. Result of covariance between enabling structure and school mindfulness

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Correlation</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
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<tr>
<td>enabling school structure ↔</td>
<td>.498</td>
<td>.649</td>
<td>.067</td>
<td>7.384</td>
<td>***</td>
</tr>
<tr>
<td>school mindfulness</td>
<td></td>
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</table>

As it is obvious from table 3, since data are normal and also because the subjects of the study outnumbered 100, RMSEA (root square of approximation error variance) could be used to test the goodness of fit of the model. The value resulted was 0.000. Since the value is equal to or less than 0.05, the model is suitable.

Furthermore, according to this, the index CMIN/df-chi square divided by freedom degree- is used as a yardstick to measure the goodness of fit of models. If this ratio is less than 2 (continuous data) and 3 (discrete data), the model is more suitable.
The index value for the present model is yielded 0.595 suggesting the fitness of the model, given that the data are continuous.

The fitness index (CFI) serves as another indicator to test the fitness of a model indicating to what extent a model is fit. The value of CFI should be equal to or higher than 90% in order for a model to be considered fit and the value for the model is 1.000 suggesting the fitness of the model.

**Table 3. Indicators of goodness-of-fit for structure model of academic optimism, enabling structure, and school mindfulness**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Estimate</th>
</tr>
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<tbody>
<tr>
<td>CMIN</td>
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<tr>
<td>CMIN/DF</td>
<td>.595</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.000</td>
</tr>
<tr>
<td>PCLOSE</td>
<td>.817</td>
</tr>
<tr>
<td>CFI</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Discussion and conclusion**

As it was already mentioned, optimism results from mutual relationship among efficacy, teaching staff’s trust, and academic emphasis on the part of school. Not only are these three qualities similar in nature and function, but also have a positive influence on student’s academic achievement (Hoy & Miskel). Considering data analysis concerning the structural relationship between the three mentioned variables, the results uncovered that school enabling structure has a positive, direct, and significant effect on academically optimistic culture. Similarly, school mindfulness has a positive, direct, and significant impact on academic optimism and there exists a positive and significant covariance between enabling structure and school mindfulness.
It can, thus, be stated that there is a positive and significant relationship between enabling structure and school mindfulness as confirmed in many studies (Hoy, Gage & Tarter, 2006; Beard, Hoy and Hoy, 2010; Leigh Mc Guigan, 2005; Donald watts, 2009). These studies have all demonstrated a strong and significant correlation between academically optimistic culture and enabling structure as well as enabling structure and school mindfulness.

Kurz, Hoy and Hoy (2007) have reported that teachers’ beliefs about student-oriented instruction, democratic class management, and professional commitment are individually and collectively pertinent to teachers’ sense of academic optimism. Furthermore, they have also shown that mindful schools possess properties such as trustworthy, competent, and expert staff, benevolent principals capable of communicate and a trusting and open climate. Hoy, Gage & Tarter (2006) also found that work settings with such attributes as competence, trustworthiness, altruism and openness encourage mindfulness and organization mindfulness and enabling structure bolster academically optimistic culture by pushing people to communicate, seeing the problems as learning opportunities, developing trust, considering differences, and contributing to solving problems.

As shown by Licata and Harper (2001), academic emphasis is closely related to school’s strong vision and organizational health. Schools can take actions to foster academic emphasis including developing policies related to school structure and function, promoting discipline in school, developing policies related to students’ achievement like policies concerning assignments, grading and monitoring students’ performance that lead to high expectations (McGuigan, 2005). It, therefore, seems that schools could reinforce school mindfulness by taking measures such as considering failures and weaknesses, showing respect to individuals’ specialties, and being sensitive to teaching and learning process. A trusting climate between parents, teachers, and students should also be created, high educational criteria should be established in
schools and every one should strive to achieve them, this belief should be bolstered in teachers as such they can affect students’ positive learning, and programs should be established to empower teachers.
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